DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 13.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004139 Address: 333 Burma Road **Date Inspected:** 15-Oct-2008

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Oregon Iron Works Clackamas, Or. **Location:** Clackamas, Oregon

CWI Name: Scott Reed **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 Hinge K components **Bridge No: Component:**

Summary of Items Observed:

On this date, Caltrans Quality Assurance (QA) Inspector Danny C. White (B89) was present at Oregon Iron Works (OIW) for the purpose of monitoring procedure qualification procedures for the Hinge K Pipe Beam at the OIW fabrication and welding shop in Clackamas, Oregon.

The QA Inspector met with Quality Control (QC) Inspector Mr. Scott Reed and Mr. AJ Blair and observed a stainless steel overlay repair procedure known as SSCS-010 was performed by OIW Welding Operator Mr. Craig Jacobsen, welder identification (WID) J6. The QA Inspector observed Mr. Jacobsen utilized a water cooled Lincoln Precision Tig 275 welding machine with argon gas at approximately 35 cubic feet per minute and performed the following gas tungsten arc welding (GTAW) test. Please see photo below for additional information.

The QA Inspector observed Mr. Jacobsen deposit (17) weld passes in the flat position onto what appeared to be a tubular section remanent of the stainless steel Electo-slag overlay procedure qualification test previously performed. The QA Inspector observed that Mr. Jacobson utilized 2.4 millimeter (mm) diameter Harris 309L electrodes and deposited (12) weld passes during the first weld layer. The QA Inspector then observed Mr. Jacobsen utilized 2.4 mm diameter Harris 316L electrodes and deposited (5) weld passes for the second weld layer before the end of the welding operator's shift. It is noted that the test was not completed this day.

The QA Inspector observed Mr. Reed and Mr. Blair as they monitored welding parameters. The QA Inspector verified the parameters utilizing his Fluke 337 True RMS Clamp Meter and a stop watch. For specific welding parameters recorded during this PQR see Caltrans Welding Witness Report, TL-6032 generated upon completion

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of this test.

It is noted that the QA Inspector was presented with copies of the material test report (MTR), a certificate of conformance (COC) for the 309L and the 316L electrodes, a COC for the Argon shielding gas and was presented with the container that the Tungsten electrodes came in.

The QA Inspector was informed that the remainder of the test would begin near the start of shift the following day.



Summary of Conversations:

The QA Inspector informed OIW that metric measurements are required for this job and the QA Inspector observed that all of the welding parameters recorded were in english. OIW personnel informed the QA Inspector that the final test results would be converted and submitted in metric.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	White,Danny	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer